### REMARKS/ARGUMENTS

Claims 1-21 are pending and were variously rejected under 35 USC §102(e) as being anticipated by Barnett in view of Official Notice. In light of the remarks below, the undersigned respectfully traverses the rejections.

### I.   INITIAL MATTERS

Claims 1-21 were also provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-21 of copending Application No. 09/834,855.

The Abstract was object to as being in claim format. It is not understood what language the Examiner objects to. The Abstract does not include any legal phraseology such as "means" or "said," but uses ordinary language, although the Abstract tracks the claims. Accordingly, the Undersigned does not understand the objection. Nevertheless, the undersigned notes that the original Abstract has greater than 150 words, accordingly, a new Abstract is provided.

In response, the undersigned respectfully requests that this provisional rejection be held in abeyance. If either or both of the copending applications are issued as patents before the present application issues as a patent, the undersigned is prepared to provide a terminal disclaimer in response to a non-provisional double patenting rejection.

Various amendments were also made to the claims to more clearly recite Markush-type claims. Such amendments were not made for purposes of patentability.

### II.   THE PRESENT INVENTION

The present invention relates to methods and systems for specifying promotions and distributing promotions across a computer network relying upon a unique and novel software architecture and mechanisms.

Initially, the specification distinguishes "promotions" or "electronic incentives" used herein from conventional "coupons." As described in the specification, page 15, lines 3-7:

> *These promotions are not considered "coupons" as "coupons" is understood in the industry. More specifically, in the industry, "coupons" are typically defined as detachable certificates, tickets, or the like that entitle the bearer or holder to a benefit. In the present embodiment, the customer and the merchant server are not given any such detachable and/or possessable certificate and cannot hold, bear, or present anything.*

Additionally, the specification notes that coupons require possession of a cookie or the like:

> *By way of contrast, in one electronic couponing systems, a electronic coupon describing a right or benefit is created in a couponing server. The electronic*

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*coupon, or token, is then downloaded to a customer's computer system and stored. These coupons or tokens may be in the form of a cookie or the like stored on the customer's computer system. Much later, the customer may enter an electronic store that is independent of the electronic couponing system. Next, the cookie or token stored on the customer's computer system is retrieved and passed back to the electronic store web server. Because the customer's computer had "possession" of the cookie or token in the computer memory, the electronic store web server provides the customer the right or benefit or the bargain described, i.e. the customer is entitled to a 10% discount. This example thus illustrates that the electronic cookie or token incorporates the standard "coupon" model: the customer's computer memory stored the cookie, and possession of the cookie was a condition for receiving the bargain.*

The background of the invention describes some problems with these possessable coupons. More specifically, one problem is that coupons for a product may be provided to users who were already going to buy the product, p2, lines 1-12:

*A problem with traditional coupons includes that coupons often end up in the hands of buyers who are not targeted. This is because distributing coupons only to target buyers is virtually impossible. Although some coupons may be distributed to channels such as magazines, direct mailings, and the like that include a large percentage of target buyers, a significant percentage nevertheless reaches non-target buyers. These non-target buyers may include those willing to purchase the product even without the coupon. Accordingly, if non-target buyers uses the coupons to purchase a product, this directly reduces the amount of profit to the promoter. As an example, a promoter may create a promotion directed to Pepsi™ drinkers to try Coke™. To do so, the promoter offers coupons providing the bearer with a dollar off a six-pack of Coke™. However, it is virtually impossible to prevent a devoted Coke™ drinker from picking and redeem that coupon. This sort of common situation directly "siphons-off" manufacturer profits.*

In light of this problem, the specification states that improved apparatus for providing targeted promotions are needed, without the problems highlighted above.

Many of the amendments to the claims and distinctions over the cited art depend upon an understanding of the following specific software concepts: As expressly described in the specification, "object-oriented" software programming techniques are used, p. 14, lines 5-9, such as Microsoft COM software objects. For example, service objects, coupon objects, product objects, are described and used.

The specification should be read and claims should be interpreted in light of the object-oriented environment described. Particular terms related to object-oriented software were

defined and / or used in the specification consistently with how these terms are used in the
software industry.   The definitions of such terms in the software industry may override non-
technical dictionary definitions of such words.  For the Examiner's reference, particular
definitions of terms are reproduced from the Microsoft Press Computer Dictionary, second
edition, 1994 in attachment A to this amendment: object-oriented programming, object, instance,
instantiate, and class.

Discussion of specific embodiments will be described below:

On p. 16, lines 10-12, the specification describes the merchant server invoking a
Service object:

> [T]he merchant server *invokes a Service object within the application server* to
> *evaluate the customer's shopping category to determine if there [are] any*
> *coupons to display, step 560.*

On p. 16, lines 12-14, the specification describes the application server
instantiating coupon objects:

> In response to the current shopping category, the application server determines
> whether any promotions are applicable and if so, *one or more "Coupon Objects"*
> *are instantiated, step 570.*

On p. 16, lines 25-38, the specification describes the merchant server querying the
instances of the coupon objects:

> Next, merchant server 140 *queries one or more "Coupon Objects"* that have been
> instantiated for a description of the pre-conditions and benefit, a[n] image of the
> product, and the like, step 620.  In response, merchant sever 140 specifies the
> rendering of the promotion on an HTML page for display on the customer's
> display, step 630.

On p. 17, lines 22-26, the specification describes the merchant server invoking
another service object:

> When the consumer desires to checkout, merchant server 140 causes application
> server 180 to use the instances of "Coupon Objects" that were created, step 710.
> In particular, *an evaluate method of a Service object is invoked,* and the amount
> of savings is calculated.  The savings is then retrieved by merchant server 140
> and displayed to the consumer, step 715.

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> *In the present embodiment, when the consumer checks out, a promotion usage condition, application server 180 stores data associated with the transaction, step 720.*

The claims, as amended, incorporate at least some of the object-oriented concepts discussed above. For example, claim 1, now recites:

> *wherein <u>the instance of the electronic incentive is created and stored in the application server</u> in response <u>a method on a service object</u> stored in the application server being invoked by the merchant server;*
> *wherein the merchant server specifies rendering of the data associated with the electronic incentive in response to <u>a query of the instance of the electronic incentive stored on the application server</u>.*

For example, claim 8, now recites:

> *a processor configured to request promotions from an application server coupled to the merchant server, configured to <u>invoke an evaluation service object within an application server</u> for one or more promotions, wherein <u>an instance of a promotion is created in the application server</u> in response thereto, configured to query the instance of the promotion object and receiving a description of a promotion from the application server, the description including pre-conditions, a user benefit and an output representation of the promotion , configured to transmit the output representation of the promotion to a client system for display to a user, configured to receive a selection of the at least one item, configured to invoke <u>a savings method in a service object within the application server</u> to determine a savings amount, wherein the savings amount comprises the user benefit from the application server when the selection of the at least one item satisfies the pre-conditions , and configured to indicate that the user is provided with the user benefit.*

For example, claim 15, now recites:

> *a processor configured to receive an electronic incentive from a central server, the electronic incentive including a pre-condition and a benefit, configured to <u>create an instance of the electronic incentive in response to an invocation of an evaluation service object</u> to determine electronic incentives for a user by a merchant server, configured to receive a query for <u>a description of the instance of the electronic incentive</u> from the merchant server, configured to receive from the merchant server an invocation of <u>an amount of savings method of a service object</u> to determine a savings for the user, wherein when a selection by a user of at least one item fulfills the pre-condition of the electronic incentive, the savings comprises the benefit.*

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III.   BARNETT

       Barnett is described as a method and system for the electronic distribution of
coupons to consumers. Specifically Barnett describes methods and systems where coupons
bundles are provided to consumers via service providers.

       Importantly Barnett does not refer to using an object-oriented paradigm. Instead,
Barnett appears to simply rely upon simple procedural calls.

       Additionally, Barnett appears to only refer to providing and redeeming
conventional "coupons." Barnett, Fig. 9 includes a sample flow chart. In one step, the remote
computer receives and stores variable "coupon data." Next, the coupon data is printed out and
redeemed in-person, or the coupon is electronically redeemed. More specifically, the
specification states on col. 9. lines 41-45.:

> *The requested coupon data package and associated advertising materials
> are transmitted by the online service provider 2 to the personal computer
> 6, where it is stored in the downloaded coupon data file 30a in the coupon
> database.*

Next, the user prints out the coupons for redemption, col. 10 lines 58-60:
*Coupons are printed by the printable coupon data generation routine 32d,
which is invoked by a user when he selects a print command from the
coupon file function 56.*

       In the case of electronic redemption, the coupon is electronically transferred, col.
1, lines 38-44.:

> *This is especially useful in the "electronic shopping mall" environment
> now found in many online services. The electronic coupon data could also
> be routed via the data communications interface 20 to a retail store where
> the user will be shopping, where the coupon data is held in a buffer
> pending purchase by the user of the matching product.*

       To address the problem of unauthorized use or duplication of these coupons,
Barnett describes using user-specific data in a bar code 90. Col. 7, line 24-25. Further, Barnett
describes:

> *The unique user bar code 90 also renders the electronic coupon system of
> the present invention secure and virtually fraud-proof. Although a user is
> able to print out a particular coupon 18 only once (to be described in
> detail below), the coupon issuer 14 could still be defrauded by a user or
> retailer who might photocopy a printed coupon numerous times and
> fraudulently and repeatedly present it for redemption. However, in
> accordance with the present invention, each coupon printed by a user is
> unique, and the scanning of a coupon presented for redemption will be*

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> *stored at the coupon redemption center. Thus, the coupon issuer will
> know if a particular user has redeemed a particular coupon and thus
> disallow further redemption of a photocopied coupon bearing the same
> indicia.*

However, in Barnett, because a user possesses these coupons, a user may still print-out a coupon for a product and give it to another user, who would have purchased the product even without the coupon. Accordingly, the manufacturer's profits may still undesirably be "siphoned-off" by these actions.

## IV.    BARNETT DISTINGUISHED

### A.    Claim 1

Barnett fails to disclose every element of claim 1.

More particularly, Barnett fails to disclose wherein <u>the instance of the electronic incentive is created and stored in the application server</u> in response <u>a method on a service object</u> stored in the application server being invoked by the merchant server.

Further, Barnett fails to disclose wherein the merchant server specifies rendering of the data associated with the electronic incentive in response to <u>a query of the instance of the electronic incentive stored on the application server</u>.

As discussed above, Barnett fails to disclose anything about an implementation using an object-oriented approach and / or objects. Instead, Barnett simply describes that coupon data are simply downloaded from a online service provider to a user at a personal computer. Once the coupon data is on the personal computer in Barnett, the on line service provider looses control of the coupon.

In contrast, the claimed limitations describe the merchant server querying invoking methods of service objects and querying instances of electronic incentive objects stored on the application server. Additionally, the instance of the electronic incentive object on the application server provides providing data to end users via the merchant server, when needed. Accordingly, the electronic incentive is never downloaded as it is described in Barnett.

In light of the above, and for other reasons, Barnett fails to disclose all elements of claim 1. Accordingly, Barnett does not anticipate claim 1.

### B.    Claim 8

Barnett fails to disclose every element of claim 8. More specifically, Barnett fails to disclose the limitation of a processor configured to request promotions from an application server coupled to the merchant server, configured to <u>invoke an evaluation service object within an application server</u> for one or more promotions, wherein <u>an instance of a promotion is created in the application server</u> in response thereto, configured to query the instance of the promotion object and receiving a description of a promotion from the application server, the description including pre-conditions, a user benefit and an output representation of the promotion ,

configured to transmit the output representation of the promotion to a client system for display to a user, configured to receive a selection of the at least one item, configured to invoke a savings method in a service object within the application server to determine a savings amount, wherein the savings amount comprises the user benefit from the application server when the selection of the at least one item satisfies the pre-conditions , and configured to indicate that the user is provided with the user benefit

As discussed above, Barnett fails to disclose anything about an implementation using an object-oriented approach and /or objects. Additionally, Barnett simply describes that coupon data are simply requested and downloaded from a online service provider to a user at a personal computer.

In contrast, the claim language above illustrates the object-oriented aspect of embodiments of the present invention, which were not disclosed by Barnett, as well as the specific storage and invocations of methods of instances of software objects stored within the application server, and not within the merchant server.

In light of the above, and for other reasons, Barnett fails to disclose all elements of claim 8. Accordingly, Barnett does not anticipate claim 8.

C.      Claim 15

Barnett fails to disclose every element of claim 15. More specifically Barnett fails to disclose a processor configured to receive an electronic incentive from a central server, the electronic incentive including a pre-condition and a benefit, configured to create an instance of the electronic incentive in response to an invocation of an evaluation service object to determine electronic incentives for a user by a merchant server, configured to receive a query for a description of the instance of the electronic incentive from the merchant server, configured to receive from the merchant server an invocation of an amount of savings method of a service object to determine a savings for the user, wherein when a selection by a user of at least one item fulfills the pre-condition of the electronic incentive, the savings comprises the benefit.

As summarized above, Barnett fails to disclose anything about an implementation using an object-oriented approach and /or objects. Instead, Barnett simply describes that coupon data are simply downloaded from a online service provider to a user at a personal computer. Because the coupon data is downloaded to the user's computer for the user to print out and / or use.

In contrast, the claim language above illustrates the object-oriented nature of embodiments of the present invention, which were not disclosed by Barnett, as well as the specific storage of the promotion object within the application server.

In light of the above, and for other reasons, Barnett fails to disclose all elements of claim 15. Accordingly, Barnett does not anticipate claim 15.

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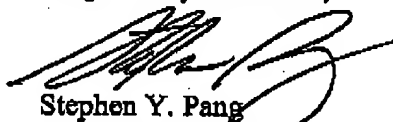
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D.  Remaining claims

Claims 2-7; 9-14; 16-21, dependent upon claims 1, 8, and 15, respectively, are also asserted to be allowable for substantially the same reasons as claims 1, 8, and 15, respectively, and more specifically for the specific limitation they recite.

## CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at (650) 326-2400.

Respectfully submitted,

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Attachment: Appendix "The Comprehensive Standard for Business, School, Library, and Home"

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**object-oriented programming** Abbreviated OOP. A programming paradigm in which a program is viewed as a collection of discrete objects that are self-contained collections of data structures and routines that interact with other objects. A class defines the data structures and routines of an object; an object is an instance of a class that can be used as a variable in a program. In some object-oriented languages, objects respond to messages, with what the principal means of communication. Other object-oriented languages use the traditional procedure-call mechanism. See also C++, object, Objective-C.

**octal** A style of text created by standing a man's foot to simulate a ballot which a man's half-a-foot does not exist in the computer or printer. See also italic, roman.

**OCR** See optical character recognition.

**octal** From the Latin octa, meaning eight, the base-8 number system, consisting of the digits 0 through 7. The octal system is used in programming as a compact means of representing binary numbers. Because octal consists of eight digits and because 3 bits can form any of eight different combinations, binary numbers are commonly divided into groups of 3 bits for conversion to octal. For example, the binary equivalents of the eight octal digits are as follows:

| Binary | Octal |
|--------|-------|
| 000    | 0     |
| 001    | 1     |
| 010    | 2     |
| 011    | 3     |
| 100    | 4     |
| 101    | 5     |
| 110    | 6     |
| 111    | 7     |

Thus the binary number 01010011 can be divided into groups of 3 bits, starting from the right and adding a zero to the left, as 001 010 011. Converted to octal, the number becomes 123. Although, as in the example above, octal numbers can look like decimal numbers, their values differ because of the different meanings assigned to each number position. In decimal notation, for example, the number 123 means 1x100 plus 2x10 plus 3. In octal, 3 in octal, which is based on powers of 10 instead of powers of 10, the number 123 means 1x8² plus 2x8 plus 3, or decimal 83.

Because octal works with multiples of 3 bits but microcomputers commonly work in units of 4, 8, 16, 32, and so on, octal is more often replaced in minicomputers and mainframes than in personal computing, where hexadecimal, or base-16, arithmetic is far more widespread. Equivalents and conversion tables for binary, decimal, hexadecimal, and octal are in Appendix B. Compare binary, hexadecimal.

**OEM** See original equipment manufacturer.

**office automation** The use of electronic and communications devices such as computers, modems, and fax machines as well as any associated software to perform office functions mechanically rather than manually.

**offline** The state in which a device cannot communicate with or be controlled by a computer. Although a device is offline when it is disconnected or turned off, the term is sometimes synonymous with being either physically disconnected or shut down. A printer, for example, can be offline (temporarily disconnected) yet still be turned on and connected to the computer by a printer cable. Compare online.

**offline storage** A storage resource, such as a disk, that is not currently available to the system. Offset In relative addressing methods, a number that indicates how far from a starting point a particular item is located. In the search for a specific data item stored within a known area (or group) of memory, an offset is used to tell the microprocessor how many bytes past the beginning of the segment the item is located. Using an offset is similar to saying "The house sixth is the fifth one from the bottom."

**off-the-shelf** Next-in-one, prepackaged. The term can refer to either hardware or software.

**ohm** The unit of measure for electrical resistance. A resistance of 1 ohm will pass 1 ampere of current when a voltage of 1 volt is applied. A 100-watt incandescent bulb has a resistance of approximately 130 ohms.

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**object** A shorthand term for object code (machine-readable code), in object-oriented programming, a variable comprising both routines and data that is treated as a discrete entity. See also abstract data type, module, object code, object-oriented programming.

In graphics, a displayed entity. For example, a rectangle could be an object in a graphic program.

**object code** The code, generated by a compiler or an assembler, that was translated from the source code of a program. The term most commonly refers to machine code that can be directly executed by the system's central processing unit (CPU), but it can also be assembly language source code or a variation of machine code. Compare source code; see also assembly language, compiler.

**object computer** The computer that is the target of a specific-communications attempt.

**object file** A file containing object code, usually the output of a compiler or an assembler and the input for a linker. See also object code.

**Objective-C** An object-oriented version of the C language developed in 1986 by Brad Cox. It is most widely known for being the standard development language for the NeXT system. See also object-oriented programming.

**object linking and embedding** See OLE.

**object module** In programming, the object-code (compiled) version of a source-code file, which is usually a collection of routines, ready to be linked with other object modules. See also linker, object code.

**object-oriented** An adjective applied to any sys-tem or language that supports the use of objects. See also object.

**object-oriented graphics** Also called vector-oriented graphics. Also called connected graphics that are based on the use of "construction elements" (graphics primitives), such as lines, curves, circles, and squares. Object-oriented graphics, used in applications such as computer-aided design and drawing and illustration programs, describe an image mathematically as a set of instructions for creating the objects in the image. This approach contrasts with bit-mapped graphics, the other widely used approach to creating images, which represents a graphic as a group of black and white or colored dots arranged in a certain pattern. Object-oriented graphics enable the user to manipulate objects as entire units—for example, to change the length of a line or enlarge a circle—whereas bit-mapped graphics require repainting individual dots in the line or circle. Because objects are described mathematically, object-oriented graphics can also be layered, rotated, and magnified relatively easily. Compare bit-mapped graphics.

**object-oriented interface** A type of user interface in which elements of the system are represented by visible screen entities such as icons (pictorial representation), which are used to manipulate the system elements. For example, the Macintosh Finder presents an object-oriented interface to the file system, representing it by using images of documents, like folders, and disk devices. Object-oriented display interfaces do not necessarily imply any relation to object-oriented programming. See also object-oriented graphics.

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# I

**installation program**

**installer**

**instance variable**

**instruction**

**instruction code.** See operation code.

**instruction counter.** See instruction register.

**instruction cycle**

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# C

**circuit analyzer**

**circuit board**

**circuit breaker**

**circuit card.** See circuit board.

**circuit switching.** A method of opening communications lines...



**CISC**

**class**

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